

study (65, 57 in G1-4 and G5 groups, respectively). The mean±SD age of the patients was 52.9±7.8 years. Mean±SD monthly cost of illness for the patients on in G1-4 stages and G5 stage were INR 7882±945 (\$127) and INR 13882±1687 (\$224), respectively. The mean±SD monthly COI for the patients on dialysis was INR 32171±950 (\$519). Of total expenditure 55.4% were spent directly for treating illness (out of pocket expenditure). On average a patient on dialysis had spent 3.9 lakh INR per year (\$6291). Through analysis of sub-groups of patients, it was found that funding from employer/ Insurance, dialysis, lower socioeconomic status, lower education, comorbidities and rural residential have a major impact on COI in patients of chronic kidney disease. **CONCLUSIONS:** Monthly cost of illness for the patients in G1-G4 and G5 were INR 7882 (\$127) and INR 13882 (\$224). The study is in progress.

PUK11

LACK OF ADHERENCE TO IMMUNOSUPPRESSIVE TREATMENT IN KIDNEY TRANSPLANT PATIENTS: ESTIMATION OF ASSOCIATED DIRECT MEDICAL COSTS

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OBJECTIVES: The Lack of Adherence to Immunosuppressive Treatment (LAIT) has been associated with Chronic Humoral Rejection (CHR) and decreased graft survival. The objective of the present study was to estimate the direct healthcare costs associated with the LAIT in Spanish Kidney Transplant (KT) patients. **METHODS:** A systematic literature review and survey of 6 KT experts were carried out to identify the relevant healthcare resource use associated with suspected LAIT, suspected kidney CHR, confirmed CHR and graft loss. Subsequently two economic models were developed from a Spanish National Health Service perspective: the first using an incidence approach (annual cost associated with LAIT according to the incidence of KT patients in the year 2013) and the second using a prevalence approach (total costs associated with LAIT due to the number of kidney transplanted patients). A sensitivity analysis was also performed. **RESULTS:** According to the incidence approach, the annual cost associated with LAIT in Spain is 12,296,243€, where 80% is driven by graft loss and the patient returning to dialysis. The mean cost per non-adherent patient is 18,121€. According to the prevalence approach, out of 25,600 KT patients in Spain (2013), LAIT would occur in 6,785 (26.5%) patients, resulting in 705 graft losses. The estimated total costs associated with LAIT adds up to 127,224,726€ consisting of 102,647,488€ being related to graft loss and return to dialysis; 13,395,015€ due to confirmed CHR; 9,742,735€ related to suspected CHR; and 1,439,487€ due to LAIT. **CONCLUSIONS:** Considering the total number of KT patients in Spain during 2013, the economic burden due to lack of adherence to immunosuppressive treatment exceeds 127 million Euros, and this figure does not include societal costs. According to our results (incidence approach) and considering data from a previous published study, LAIT represents 7.1% of healthcare costs associated with the treatment of KT patients.

PUK12

COST MINIMIZATION ANALYSIS OF IMMUNOSUPPRESSIVE TREATMENT ON KIDNEY TRANSPLANT PATIENTS

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OBJECTIVES: Kidney transplantation remains limited by toxicities of calcineurin inhibitors (CNIs). Belatacept is a less toxic therapeutic alternative, but its cost limits its use. Whether the reduction of renal post-transplant hospitalization balance this higher cost has been addressed in two situations: 1- in first line therapy 2- as a second line immunosuppressant for CNIs intolerant patients. **METHODS:** A Cost-minimization analysis has been performed for 2 groups of patients: Group 1- 7 Belatacept-treated patients paired to 21 Tacrolimus-treated patients (1:3) over 5 years post-transplant. Group 2- 12 patients having received transplantation, one year before and after their shift from CNI to Belatacept. The study has been conducted from The French Health Insurance (FHI) perspective. Treatment-associated costs (based on FHI and hospital purchasing prices) and hospitalization DRG's costs (collected from PMSI database) were compared by a modified Friedman's procedure and a Wilcoxon rang test, respectively. **RESULTS:** In both cohorts, the cost of belatacept treatment and administration was more expensive than CNIs treatment, dosage and follow-up but there were fewer unscheduled hospitalizations with belatacept: Group 1: 69478US\$ vs 14900US\$, 11±10 vs 17±15 days Group 2: 14031US\$ vs 3778US\$, 22±8 vs 50±50 days Taking into account treatment and hospitalization costs over five years on the first cohort remained significantly higher with Belatacept as compared to CNIs: 90324US\$ versus 38792US\$ whereas the shift to Belatacept reduced this amount from 54720US\$ to 36667US\$ over 1 year, so a 40% decrease of post-transplant management costs. Heterogeneity of the drug response and the low number of patients prevented these differences to be statistically significant but belatacept treated patients cohort are sparse. **CONCLUSIONS:** This economic analysis shows that beyond potential therapeutic advantages and reduction of unscheduled post-transplant hospitalizations, the place of the drug in a therapeutic flow chart must include the cost-minimization approach to allow patients best healthcare's management nowadays.

PUK13

COST-EFFECTIVENESS ANALYSIS OF MANAGEMENT OPTIONS FOR SMALL RENAL MASSES: A SYSTEMATIC REVIEW

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OBJECTIVES: Surgical and non-surgical management options with pre-treatment biopsy are available for small renal masses (SRMs). The cost-effectiveness of these options is unclear. This study aimed to systematically review the cost-effectiveness of various management options for SRMs, and evaluate these cost-effectiveness studies. **METHODS:** A systematic literature review was conducted on five databases from inception to December 31, 2014. Search terms consisted of three categories of keywords, e.g., 'economic evaluation', 'renal mass' and 'surgery'. Inclusion criteria were 1) original research, 2) full economic evaluation of management options for SRMs, 3) written in English, and 4) with targeted populations aged ≥ 18 years old. Exclusion criteria were 1) investigation of metastases only, and 2) case reports etc. Manual search of relevant bibliographies was performed. Eligible studies were evaluated using the Consolidated Health Economic Evaluation Reporting Standards (CHEERS). **RESULTS:** Among the 557 articles retrieved, 6 were included, all of which were cost-utility analyses and used Markov models with a lifetime horizon except for one study that adapted a 10-year horizon. One to three items on the CHEERS checklist were unfulfilled for each study. Three studies were from a societal perspective whereas the others were from a payer's perspective. Health states included no evidence of disease, recurrence, metastases and death. Transition probabilities were obtained from observational studies. Evaluated strategies were surveillance, ablation, and partial and radical nephrectomy with/without pre-treatment biopsy. Two studies determined that pre-treatment biopsy was dominant while two studies found that laparoscopic partial nephrectomy was the optimal strategy. The remaining two studies concluded that ablation was preferred. **CONCLUSIONS:** The evidence of cost-effectiveness of management options for SRMs is limited. The findings of the available studies are inconclusive. Large, prospective, randomized clinical trials assessing various competing strategies in the management of SRMs are needed to inform better decision-making for physicians and patients.

URINARY/KIDNEY DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PUK14

SELF-EFFICACY, HEALTH LITERACY AND ADHERENCE TO SELF-CARE BEHAVIORS IN KIDNEY TRANSPLANT RECIPIENTS

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OBJECTIVES: Kidney transplant recipients (KTRs) must manage several self-care behaviors. They have to take multiple daily medications, look for signs of acute rejection, have frequent blood draws and often manage additional chronic conditions. There is limited understanding of underlying behavioral factors that may influence KTRs' adherence to self-care behaviors. This study aims to explore the association between self-efficacy, health literacy and adherence to self-care behaviors and to describe variations of self-efficacy based on individual KTRs' characteristics. **METHODS:** KTRs who were 1 to 5 years post-transplant, over the age of 18 at the time of transplants and had a single organ transplant were eligible. Four hundred and thirty-five eligible KTRs received a mailed survey inquiring about self-efficacy, health literacy, medication adherence, and self-care behaviors. Self-efficacy was tested as a mediator or as a moderator of health literacy on adherence to self-care behaviors. Linear regression analyzed variations of self-efficacy in KTRs. **RESULTS:** One hundred and eighty-two KTRs completed the survey (42% participation rate). Mean age of responders was 59.5 (+/-12.1) years; 61.0% were male; and 38.1% were African American. The mean time since transplant was 38.0 (+/-18.1) months. African Americans had lower self-efficacy compared to other patient groups ($\beta = -0.61, p = 0.03$). An increase in functional health literacy was associated with an increase in self-efficacy ($\beta = 0.72, p < 0.01$). Self-efficacy was a partial mediator of functional and communicative health literacy on adherence to self-care behaviors (functional: $\alpha\beta = 0.32, CI: 0.11-0.60$; communicative: $\alpha\beta = 0.37, CI: 0.11-0.71$). **CONCLUSIONS:** This study provides new insights into the factors influencing KTRs' adherence to self-care behaviors. Clinicians need to monitor patients with low self-efficacy and low health literacy. The teach-back method and frequent communication can help increase self-efficacy. Use of larger font, photos and visual cues will help patients with limited health literacy. These methods may optimize KTRs' adherence to self-care behaviors.

PUK15

EVALUATION OF MEDICATION ADHERENCE RATE AMONG HEMODIALYSIS PATIENTS: A MULTICENTRIC COMPARATIVE STUDY

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OBJECTIVES: To evaluate and compare the medication adherence rate among the patients undergoing maintenance Hemodialysis at different hospital setups in India. **METHODS:** A prospective comparative study was conducted at academic, corporate and government hospitals after the approval of protocol by the Ethics Committee. The patients on hemodialysis of both gender aged between 18-75 years were enrolled in the study after obtaining the written informed consent from the patients. The validated medication adherence rating scale was used to evaluate the adherence among the patients. The medication adherence rate was scored from 0-8 with higher scores representing better adherence. ANOVA test was used to assess the difference in mean scores in medication adherence rating among three hospitals patients with p value less than 0.05 was considered as statistically significant. **RESULTS:** A total of 200 patients were recruited in the study. Out of 200 patients, 104 from academic hospital, 70 from corporate hospital and 26 from government hospital. The mean age and vintage of hemodialysis of the study population were 51.56 years and 41.75 months.